Amendments to the Claims

This listing of the Claims will replace all prior versions and listings of the claims in this patent application.

Listing of the Claims

1-4. (canceled)

5. (currently amended) A planar inductor in high-performance high-frequency semiconductor circuits, comprising:

a substrate having a top side and a bottom side wherein said top side has a passive surface and an active surface, ~~having a first and a second surface,~~ active devices with conductive interconnects ~~being covered by a layer of passivation~~ having been created over ~~the~~ said active surface of said substrate;

a passivation layer over said passive surface and said active surface of said substrate and overlying said at least one pair of planar inductors;

a scribe line penetrating through said passivation layer overlying said passive surface to said passive surface;

a glass panel attached to the surface of said layer of passivation;

~~the first surface of~~ said substrate having been cut from said bottom side, said cut being aligned with ~~a~~ said passive ~~region in said second~~ surface of said substrate, said cut not completely penetrating through said substrate;

all of said substrate material underlying said passive surface having been removed from ~~a passive region in the second surface~~ said bottom side of said substrate, exposing at least one bond pad created on ~~the~~ said passive surface ~~of said passive region~~ on each side of said scribe line; and

said glass panel having been cut in alignment with said scribe line.

6. (currently amended) The planar inductor of claim ~~1~~5, ~~said substrate~~further comprising:

~~a first and a second surface, active devices having been created in or on active surface regions in the second surface of said substrate, said active surface regions being separated by a passive surface region, a scribe line having been provided across said passive surface region,~~ a layer of insulation having been provided over ~~the~~ said active surface ~~of said active regions.~~

~~at least one bond pad having been provided in said passive surface region on each side of said scribe line,~~ a layer of dielectric having been deposited over the surface of said layers of insulation and over said passive surface ~~region separated by said scribe line,~~; and

~~at least one~~ second bond pad having been created within a top ~~on the~~ surface of said layer of dielectric on each side of said scribe line; and

at least one planar inductor on the surface of said layer of dielectric on each side of said scribe line, said at least one planar inductor overlying said passive surface ~~region~~ of said substrate;.

~~depositing a layer of passivation over the surface of said layer of dielectric separated by said scribe line;~~

7. (currently amended) The planar inductor of claim 5 wherein at least one layer of interconnect lines is provided in said layer of dielectric, said interconnect lines making electrical contact with said active devices provided in the active ~~regions~~ surface of said substrate, said interconnect lines further being in contact with said at least one bond pad provided on ~~the~~ said passive surface ~~of said passive region~~ of said substrate and with said at least one second bond pad provided on ~~the~~ said top surface of said layer of dielectric.

8. (currently amended) The planar inductor of claim 5 wherein said at least one inductor ~~created on the surface of said layer of dielectric~~ on each side of said scribe line is connected to said at least one second bond pad provided on ~~the~~ said top surface of said layer of dielectric on each side of said scribe line.

9-12. (canceled)

13. (currently amended) A planar inductor in high-performance high-frequency semiconductor circuits, comprising:

a substrate having a top side and a bottom side wherein said top side has a passive surface and an active surface ~~first and a second surface~~, active devices with conductive interconnects ~~being covered by a layer of passivation~~ having been created over ~~the~~ said active surface of said substrate;

a passivation layer over said passive surface and said active surface of said substrate;

a scribe line penetrating through said passivation layer to said passive surface.

~~divided by a scribe line,~~ said ~~first~~ top and ~~second~~ bottom surfaces having been cut through along said scribe line;

a thick layer of a polymer dielectric formed over the surface of said layer of passivation ~~divided by said scribe line~~;

at least one planar inductor created on the surface of said thick layer of a polymer dielectric on each side of said scribe line, said at least one planar inductor overlying said passive surface ~~region~~ of said substrate; and

at least one bond pad created on the surface of said thick layer of a polymer dielectric on each side of said scribe line, said at least one planar inductor overlying said passive surface ~~region~~ of said substrate.

14. (currently amended) The planar inductor claim 13, ~~said substrate~~further comprising:

~~a first and a second surface;~~

~~active devices having been created in or on active surface regions in the second surface of said substrate;~~

~~said active surface regions being separated by a passive surface region;~~

~~a scribe line having been provided across said passive surface region;~~

a layer of insulation having been provided over ~~the~~ said active surface ~~of said active regions~~;

~~at least one bond pad having been provided in said passive surface region on each side of said scribe line;~~

a layer of dielectric having been deposited over the surface of said layers of insulation and said passive region separated by said scribe line; and

a layer of passivation having been deposited over the surface of said layer of dielectric separated by said scribe line.

15. (currently amended) The planar inductor claim 14 wherein at least one layer of interconnect lines is provided in said layer of dielectric, said interconnect lines making electrical contact with said active ~~regions~~ surface of said substrate, said interconnect lines further being in contact with said at least one bond pad provided on ~~the~~ said passive surface of said ~~passive region of said~~ substrate and with said at least one bond pad provided on the surface of said thick layer of a polymer dielectric.

16. (original) The planar inductor claim 14 wherein said at least one inductor created on the surface of said layer of dielectric on each side of said scribe line is connected to said at least one bond pad provided on the surface of said thick layer of a polymer dielectric on each side of said scribe line.